Work Order ID December-05-13 2:38.			*109	9930*						Page	1.,
Item ID: D3183 Revision ID: Item Name: Cap Start Date: 12/05/ Required Date: 12/19/	/13 Start Qty: 30.00	*30* *30*	Accept	*N900  Cust Item  Customer:		100	)* s	Setup Star	1/7	S1* S2*	: Ti Santi
Reference:		.50		Customer.		•	<b>T</b>	Davis Stay			
Approvals: Proc	ess Plan: MLJ	Date: 13-12-05	Tooling:	D	ate:		ŀ	Run Stai	1/7	R1*	
QC:		Date:	SPC (Y/N):	Date:		<del></del>		Sto	*N	R2*	
Sequence ID/ Work Center ID	Operation Description	###	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	
Draw Nbr	Revision Nbr										
D3183	Rev C1										
100 *100* Hardinge	Hardinge CNC LATHE S	SMALL.	0.00				31	φ		JFC '	- 2013-12
Hardinge CNC Lathe Small		-9 Cap as per Folio FA388D	eburr								:
110	QC2- Inspect parts off m	achine FAI/FAIB	0.00								
*110* QC Quality Control	Memo		0.00				31	φ		<u> </u>	013-17-1
120	QC8- Inspect parts - seco	and check	0.00				31	Ø	,	OAG <b>40</b>	<b>3</b>
*120* QC Quality Control	Memo		0.00				ے ا	<u> </u>		13/12	

DQA:	<del></del>	_ Date:												
QA Closed:		Date:			WORK ORDER NON	-C(	ONFO	RMANCE / UPDATE		ork Order up	odate only	AEROSPACE		
Work Orde	er:				DISPOSITION			AGA	AINST DE	PARTMENT	/PROCESS			
Part No				Rework Scrap Use-as-is Suspected Unapproved		ŧ	Skid-tube Crosstube  Machining Small Fab  Thermoforming Finishing  Large Fab Composite		Water J Prod. Eng. Coc Rec/Store/Packagir Suppli		Engineering Quality Other			
Root	<del></del>		T	Desc	ription of work order update		Initial	Action		Sign 9				
Cause	Date	Step	Qty	Desci	or non-conformance	ł	nief Eng	i		Sign & Date	Verification	QC Inspector		
Design Doc/Data Equip/Tooling Handling/Pre Material Operator Offset/Setup Process Supplier Training Transport Unapproved														
						FAI	ULT CA	TEGORY						
Landir	Centre Not Concentric Cracks Br Crimp/Kink/Ripple/Wave Cuffs Crushing Heat Treat Inspection Strip in Tube Marks/Chatter Br				General Bend BOM/Route Broken/Damage/Defect Burrs Contamination Countersink Cut Too Short Drawing Drill Holes Finish		Grain Hardwa Inspect Instruct Misalig Mislabe Misread Off-set	tion Incomplete/Unqualified ctions Incomplete/Unclear gned/off center seled		Outside Dim Over/Under Part Incorred Part Lost/Mi Part Moved Positioned W Power Loss/S	tolerance ct ssing	Pressure/Forced Set-up Temperature/Cure Weld Wrong Stock Pulled Other		
Turning Sequence Wave/Twist in Tube			-	Fit/Function	$\vdash$	Out of Calibration								

5 18			
**************************************	$\sim$ 1	TT	109930
VV III'K	* * * * * * * * * * * * * * * * * * *		11177111
7 7 U 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Oiuvi	**	10//00

Quality Control

December-05-13				2()[*	1930*						Page 2	_
Item ID: Revision ID:	D3183-9		A	ccept	*N900	<b>040</b>	100	)* s	etup Star	I M	S1*	
Item Name:	Cap								Stop	' <b>*N</b>	S2*	
Start Date:	12/05/13	Start Qty: 30.00	*30*		Cust Item I	D:						
Required Date:	12/19/13	Req'd Qty: 30.00	*30*		Customer:							
Reference:			****						_			
Approvals:	Process Pl	lan:	Date:	Tooling:	Da	ite:		R	lun Star	1/1	R1*	
	QC:		Date:	SPC (Y/N):	Dạ	ıte:			Sto	*N	R2*	
Sequence ID/ Work Center II	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	_
, 130		Identify as per dwg & Sto	ck Location: <u>ST2</u> 35E	0.00					Dan			
*130* Packaging Packaging		Мето		0.00				_3/ <sub>&gt;</sub>	9-89	3-12	-//	
									1		.:	į
140 ** 4 4 0 *		QC21- Final Inspection -	Work Order Release	0.00					(km	13/12/1	1	
*1· <b>4</b> 0*		Mama		0.00				- 47	'/	-/10-/1		

MLJ 13-12-11

DQA:		Date	::											
QA Closed:		Date	<u>:</u> :		WORK ORDER NON	-C(	ONFO	RMANCE / UPI		/ork Order up	odate only	AEROSPACE		
Work Orde	er:				DISPOSITION				AGAINST D	EPARTMENT,	/PROCESS			
Part No.  NCR No.			<del></del>	Rework Scrap Use-as-is Suspected Unapproved		Machining Small Finish		Crosstube Small Fab Finishing Composite	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier		Engineering Quality Other			
Well It				<del></del>	Juspected Onapproved	]		carge rab	Composite		20ppner			
Root Cause	Dat	e Step	Qty	Desc	ription of work order update or non-conformance	ŀ	Initial nief Eng	Actio Descrip		Sign & Date	Verification	QC Inspector		
Design Doc/Data Equip/Tooling Handling/Pre Material Operator Offset/Setup Process Supplier Training Transport Unapproved														
						FA	ULT CA	TEGORY						
Landin	Landing Gear  Bending Centre Not Concentric Cracks Crimp/Kink/Ripple/Wave Cuffs Crushing Heat Treat Inspection Strip in Tube Marks/Chatter Turning Sequence				General Bend BOM/Route Broken/Damage/Defect Burrs Contamination Countersink Cut Too Short Drawing Drill Holes Finish		Grain Hardwa Inspect Instruct Misalia Mislaba Misread Off-set	ion Incomplete/Unquictions Incomplete/Unquictions Incomplete/Unquictions Incomplete/Unquictions Incomplete/Unquictions Incomplete/Unquictions Incomplete/Unquictions Incomplete/Unquictions Incomplete/Unquictions Incomplete		Outside Dim Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	tolerance ct ssing	Pressure/Forced Set-up Temperature/Cure Weld Wrong Stock Pulled Other		
Turning Sequence Wave/Twist in Tube			-	Fit/Function		Out of Calibration				-				

# Picklist Print

December-05-13 2:38:51 PM

Work Order ID: 109930

\*109930\*

D3183-9 Parent Item:

\*D3183-9\*

Parent Item Name: Cap

**Start Date:** 12/05/13

Required Date: 12/19/13

**Start Qty: 30.00** 

Required Qty: 30.00

Comments:

IPP A 06.05.03 New issue KJ

Component Item ID/	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status	
MDELRINR1.000		Purchased	No			100	f	28.8400	0.0333	2				÷
									ملممام					

\*MDFI RINR1 000\*
Delrih Round Bar 1"

<b>Location</b>	Loc Qty	Loc Code	
MAT039	28.84		
m127442	28.84		2 JFC 2013-12-10

DQA:		_ Date:			- <b>™</b> ∆∧DT										
QA Closed:		Date:			WORK ORDER NON	-CC	ONFO	RMANCE / UPDATE		- ul. Oud - u	odaka auto	AEROSPACE			
QA Closed.		Date.						···		ork Order up	date only				
Work Orde	r:				DISPOSITION			AGA	INST DE	PARTMENT	/PROCESS				
					Rework	1		Skid-tube Cross	tube	1	Water Jet	Engineering			
Part N	0.				Scrap	1		<b></b>	l Fab						
					Use-as-is	1	Therr	noforming Finis	shing						
NCR N	o				Suspected Unapproved			Large Fab Comp	osite	]	Supplier				
Root	<u> </u>	1	<u> </u>	Docc	ription of work order undete		nitial	l Action		C: 0					
Cause	Date	Step	Qty	Desc	ription of work order update or non-conformance	1	nitial iief Eng	Action		Sign &	Varification	OC Inconcator			
Design	Date	Step	Qty	ļ	or non-comormance	Cii	nei ciig	Description		Date	Verification	QC Inspector			
Doc/Data	-														
Equip/Tooling															
Handling/Pre						İ									
Material															
Operator															
Offset/Setup		·		1											
Process															
Supplier															
Training											•				
Transport															
Unapproved				<u> </u>		<u> </u>									
						FAI	ULT CA	TEGORY							
Landin				_	General	_	1			,		_			
	Bending				Bend		1	Program	L	Outside Dim	ensions	Pressure/Forced			
-	<del> </del>	lot Conce	ntric	<u> </u>	BOM/Route		Grain	<b>:</b>	<u> </u>	Over/Under	tolerance	Set-up			
-	Cracks			<u> </u>	Broken/Damage/Defect		Hardwa		<u> </u>	Part Incorred	<u> </u>	Temperature/Cure			
-		ink/Ripple	:/Wave	<u> </u>	Burrs	<u> </u>		ion Incomplete/Unqualified	¹	Part Lost/Mi	ssing	Weld			
-	Cuffs			_	Contamination		1	tions Incomplete/Unclear	ļ	Part Moved	Ĺ	Wrong Stock Pulled			
-	Crushing			<u> </u>	Countersink	_	1	gned/off center		Positioned V		7			
	Heat Tre		<b>-</b> 1	<u> </u>	Cut Too Short	$\vdash$	Mislabe			Power Loss/	Surge	Other			
		on Strip in	Tube	-	Drawing		Misread								
}	Marks/C			<u> </u>	Drill Holes	_	Off-set								
-		Sequence wist in Tul		$\vdash$	Finish Fit/Function	<u></u>	ł	Calibration							
1	IVVAVe/!	WIST IN THE	16	- 1	IEU/EUDCTION	1	It but of 9	SACHANCA							

DART AEROSPACE LTD	Work Order:	109930
Description: Cap	Part Number:	D3183-9
Inspection Dwg: D3183 Rev: C1		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

						· · · · · · · · · · · · · · · · · · ·
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.830	+/-0.005	0-830	/		Mic	JFC-07-
Ø0.720	+/-0.002	0.720	<b>V</b>		PIN	Shop
Ø0.747	+/-0.001	0.747	✓ ·		Mic	118-120
R0.010	+/-0.010	R0.010	✓		radb	Snop
R0.031	+/-0.010	RC. 031	✓ ✓		<b>1</b> 1	, 1
0.199	+/-0.001	0-199	~		Caliper	JFC-01
0.276	+/-0.010	0.276	/ \	1	1,1	Le
0.039	+/-0.010	0.037	<b>/</b> `		tγ	1,
		·				
					, , , , , , , , , , , , , , , , , , ,	
	:				***	
1	1	ì		1	1	

Measured by: Se Audited by: 40 Prototype Approval: N/A

Date: 2013-12-10 Date: 13/12/11 Date: N/A

Rev	Date	Change	Revised by	Approved
Α	04.04.20	New Issue (P/O D3183-045)	KJ/RF	1
В	06.03.09	Dimension Ø0.830 was Ø0.850	KJ/JLM 🔏	Gd/

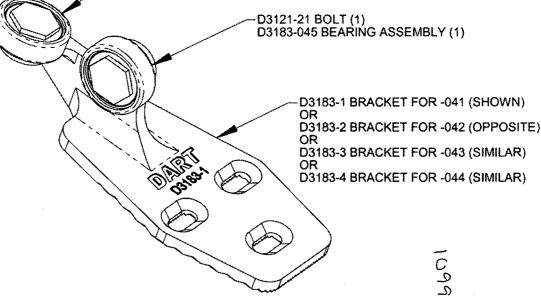




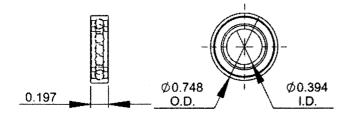
	DESIGN	4	DRAWN	BY	DART AEROSPACE L HAWKESBURY, ONTARIO, CAN.				
)	CHECK	APPR		ED	DRAWING NO.	REV. C			
	DATE	04.0	02.17		BRACKET ASSEMBLY	SCALE			
	Α.	0:	3.01.24		NEW ISSUE				
	В	0	3.06.17		REMOVE BEARING; 1.012 WS 0.882				
	С	,04.02.17			ADD -045/-9; 0.182 WAS 0.431				

DEO ATTACHED

04.11.09 0.830 WAS 0.850 D3121-21 BOLT (1) D3183-045 BEARING ASSEMBLY (1)

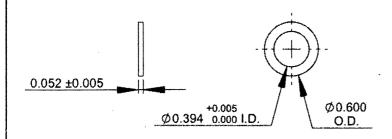


D3183-041 BRACKET ASSEMBLY (SHOWN)
D3183-042 BRACKET ASSEMBLY (OPPOSITE)
D3183-043 BRACKET ASSEMBLY (SIMILAR) D3183-044 BRACKET ASSEMBLY (SIMILAR)



## **D3183-5 BEARING:** SPECIFICATION CONTROL DRAWING

- 1) SINGLE ROW, DEEP GROOVE, CONRAD TYPE, SHIELDED
- 2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ
- 3) ALL DIMENSIONS ARE IN INCHES



## **D3183-7 WASHER**

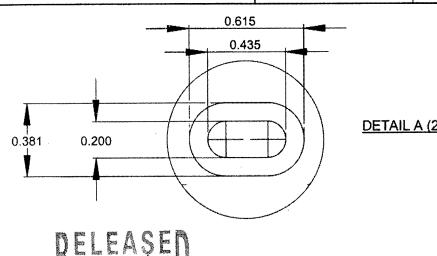
- 1) MATERIAL: AISI 303 ROUND BAR (M303R) **ANNEALED**
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

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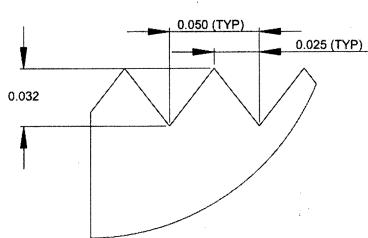
	DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA					
1	CHECKED	APPROVED	DRAWING NO. D3183	REV. C SHEET 4 OF 4				
	DATE 04	.02.17	BRACKET ASSEMBLY	SCALE 1:1				

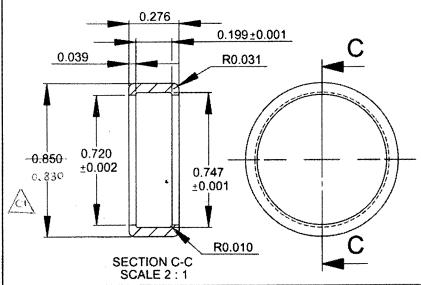


**DETAIL A (2:1)** 

DEO ATTACHED

**DETAIL B (20:1)** 





### D3183-9 CAP

- 1) MATERIAL: DELRIN ROD, Ø1.00 (REF DART SPEC. M-DELRIN-R1.00)
- 2) TOLERANCES ARE PER DART QSI 018 **UNLESS OTHERWISE NOTED**
- 3) ALL DIMENSIONS ARE IN INCHES

### D3183-045 BEARING ASSEMBLY

1) ASSEMBLE D3183-5 BEARING AND D3183-9 CAP

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DRAWING NO.		TITLE		REV.C1	DART AEROSPACE LTD		D.E.O. NO.			SHEET NO.		SCALE	
D3183	j	<b>BRACKET ASSE</b>	MBLY		ENGIN	<b>IEE</b> R	ING ORDER	D3183	-C1-1	$\circ$	SHEET	1,OF 1	NTS
DRAWN	q2	CHE	CKED	1	MFG. APP	R.	<b>\</b>	APPROVED	M		DE APPR.	-111	
DATE	10.05.	14 DAT	E 10.00	6.30	DATE	(D.C)	SG.30	DATE	10/00	30	DATE (	106/30	

## **D3183-5 BEARING**

ADD POSSIBLE SUPPLIER: KML P/N 6800-ZZ

**BASIC LOAD RATING REQUIREMENT:** 

Cr = 1720 N (386 lb) MIN [DYNAMIC]

Cor = 840 N (188 lb) MIN [STATIC]

**REF PAR 10-012** 



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